Internet Basic Developer Network

Newsletter 1

INTRODUCTION

I know this is supposed to be a newsletter about programming, but at the moment I'm thinking about jazz -- Herbie Hancock, specifically. Back in 1965, Hancock wrote one of the most enduring standards in the jazz idiom, a tune called "Maiden Voyage." That tune has always reminded me of new ventures, exploration, discovery, and the journey into new waters.

I guess it's no surprise that I'm thinking of "Maiden Voyage" now, on the day we send our first newsletter to you, the members of the Internet Basic Developer Network. Sure, all of us here at Signature Systems have a few things in mind for these newsletters, but it's exciting to know that together we're going to explore topics that will be new to all of us. As with any journey of this kind, everyone in our "club" can be a tour guide. We welcome your ideas, suggestions, sample code, questions, and comments as we proceed on this expedition.

Happy sailing,

Bryce Martens
Newsletter editor

INTERNET BASIC DOCUMENTATION

One of the nice features of using UltraEdit to write code for a Comet system is that you have instant access to the Internet Basic documentation. In UltraEdit, you can highlight a keyword in your code and press F1, which displays the on-line help for that keyword.

It turns out that all of the Internet Basic documentation is contained in one good-sized file (over 500 KB). Several of you have asked how this documentation file was built, so we thought we would describe the process here.

First, here's some history. The original MTB documentation was prepared using Word Perfect. In the early 90's, Robert Laurin (Systemes Informatek, Montreal) converted the word processing files to a keyed file so that the MTB documentation would be available in the Comet Editor (this implementation represents one of the classic applications of the ENTER statement and Comet windows). In 1996, Bryce worked with Stan Nelson (Topspin Computers, Huntington Beach) to create a Comet hypertext version of the MTB documentation, using the technology that was invented for CVIEW. A couple of years later, thanks to the programming work of Morio Sakaguchi in Sebastopol, these files were converted to HTML and made available at Signature's web site (and also for downloading). In the past several years, lots of additions and updates have been made to these HTML files.

When Signature renamed MTB to Internet Basic and selected UltraEdit as the editor-of-choice for Comet systems, we decided to convert the documentation files to Microsoft's HTML Help format (the de facto standard for most Windows applications). Fortunately, Microsoft makes a free tool for this purpose. It's the HTML Help Workshop.

The HTML Help Workshop is a "compiler" of sorts, in that it gathers raw material from a number of source files (HTML documents) and builds a single output file containing all of the information. The output file is called a "compiled HTML file" and is denoted with a "CHM" suffix. The Internet Basic help file is named IBHELP.CHM. You can launch this file directly (it's in the UltraEdit folder) or let UltraEdit launch it when you select "Internet Basic Help" from the Help menu or press the F1 key with a keyword highlighted.

There are some good reasons to use a compiled HTML file. First, Microsoft's standard help reader program provides access to the table of contents and index that are built into the compiled file. Also, the help reader provides full text search capability, and offers you the option to print any page in the documentation.

There's an optional feature worth mentioning (and one we've implemented). The HTML Help Workshop can also be used to create a web version of the compiled HTML file. In this case, though, the files are not compiled; they remain as individual HTML files (the Internet Basic documentation consists of more than 540 of them at last count). However, the table of contents and index are "compiled" and available via the web. In fact, these two features utilize ActiveX controls, which is great if you're using Internet Explorer. Unfortunately, this Microsoft technology is not supported in Netscape Navigator. Thus, if you plan to visit www.internetbasic.com, use IE.

We're currently working on an updated version of IBHELP.CHM and will release this to the members of the Internet Basic Developer Network very soon. Meanwhile, if you'd like more information about using HTML Help Workshop for your own HTML documentation projects, contact Bryce.

INTERNET BASIC AND SIGNATURE.NET

If you've visited Signature's web site in the past few days, you've probably noticed that we made a subtle change to the format of the home page. We placed the "Comet News" box on the right-hand side of the page, just above the list of current releases. What makes this news box interesting, at least to the people reading this newsletter, is that an Internet Basic program (well, if you want to get technical, it's really an XAP program) is running inside of the box. The news page contains a "Join the Comet Mailing List" button that launches another XAP program. This second program is a data entry program for people who want to add their name to Signature's mailing list. Thus, we created a couple of Comet applets that run within the context of our home page. We think this technology is attention-grabbing and we hope you'll find it useful for your web sites.

Here's some information on the steps we followed to create these pages. First, we used an HTML feature called "floating frames" to define the location and size of the news box. The <iframe> tag lets you create a "page within a page," which is exactly what we wanted to do.

Note: A floating frame can display content from any web source, including web pages and/or applets from any URL. More on this below.

Next, we wrapped some Javascript code around the <iframe> tag to handle the differences between IE and Netscape. Since Netscape doesn't support floating frames, we wanted to make sure we had another way to present the news box applets to Netscape users. The Netscape solution is to open a new window and run the Comet applets there. Otherwise we use the <iframe> tag to create the floating frame in IE.

Thanks to Greg Richards of Matrixwebs.com in San Jose for providing the Javascript and floating frame code. Greg is a Comet and XAP user (and web page designer). You can view the source to Signature's home page or Greg's page at Matrixwebs.com to see the exact details.

Then, we wrote a couple of XAP programs to run within the floating frame. The initial program displays "Comet News" and the date (based on the value of DATE$ at Signature.net). This message stays on the screen briefly, and is followed by a page containing the latest news from Signature Systems. Actually, both of these pages are sent by the same Internet Basic program. The program uses a query string to determine which HTML template to send to the browser, a technique that is demonstrated in the eComet tutorial.

If the user wants to join Signature's mailing list, the XAP program displays a data entry form that prompts for name, company name, and e-mail address. When the user presses the Submit button, this data is sent to a second XAP program, which writes these fields (along with DATE$ and TIME$) to a data file on the Signature's XAP system.

If the user neglects to enter one of the three required fields, the second XAP program displays an error message and then returns to the data entry page. When the data entry is complete, the XAP program returns to the main news page.

You can see two other coding techniques on display here, both of which are HTML-related features that add a sense of animation to the pages. First, notice that some of these screens advance without any user input (the banner page to the news page, for example). This is accomplished with an HTML feature called "redirection." A <meta> tag is placed in the <head> section of an HTML document, telling the browser how long to display that page before advancing to a new page. We've discussed this before, in the Comet tip about "client pull technology" (see the Documentation page at Signature's web site).

Second, if you are using an up-to-date version of IE, you'll see the XAP pages "blend" smoothly from one to another. This involves a feature called Dynamic HTML (better known as DHTML). These smooth transitions use <meta> tags that are simple to incorporate into your existing web pages. If you're interested in seeing this code, let me know.

Earlier in this discussion, we said that a floating frame displays content from any web source, including web pages and/or applets from any URL. That means that YOUR web page could contain a floating frame with applets from Signature's XAP server.

Want to see this work? Add the following HTML code to the <body> section in one of your web pages:

```
<iframe src="http://signature.net:8080/xap/news"
name="news" height="200" width="400"
frameborder="1" marginwidth="10" marginheight="10">
</iframe>
```

When you view your page in IE, you'll see a floating frame, 200 pixels high by 400 pixels wide, containing the "news" program from Signature's XAP server.

We realize that you might not have much use for the "Comet News" page on one of your web pages, but we hope this demonstration provide some food for thought for you. Does anyone have a good idea for a collaborative XAP application?

Well, that wraps up the first newsletter for the Internet Basic Developer Network. Remember to send us some suggestions for future topics.